

WHAT IS CLAIMED IS:

1. A polypeptide encoded by a nucleic acid molecule at least 85% identical to a molecule selected from the group consisting of:

- (a) SEQ ID NO:1;
- (b) the fully complementary sequence of SEQ ID NO:1;
- (c) SEQ ID NO:2;
- (d) the fully complementary sequence of SEQ ID NO:2;
- (e) SEQ ID NO:3; and
- (f) the fully complementary sequence of SEQ ID NO:3.

2. The polypeptide of claim 1 that is encoded by SEQ ID NO:1.

3. The polypeptide of claim 1 that is encoded by the fully complementary sequence of SEQ ID NO:1.

4. The polypeptide of claim 1 that is encoded by SEQ ID NO:2.

5. The polypeptide of claim 1 that is encoded by the fully complementary sequence of SEQ ID NO:2.

6. The polypeptide of claim 1 that is encoded by SEQ ID NO:3.

7. The polypeptide of claim 1 that is encoded by the fully complementary sequence of SEQ ID NO:3.

8. A polypeptide encoded by a nucleic acid molecule selected from the group consisting of:

- (a) nucleotides 2-1999 of SEQ ID NO:1 (env);
- (b) nucleotides 2452-4839 of SEQ ID NO:1 (gag);
- (c) nucleotides 4871-8060 of SEQ ID NO:1 (pol);
- (d) nucleotides 598-2169 of SEQ ID NO:2 (gag);
- (e) nucleotides 2320-4737 of SEQ ID NO:2 (pol);
- (f) nucleotides 4738-6722 of SEQ ID NO:2 (env);

- (g) nucleotides 585-2156 of SEQ ID NO:3 (gag);
- (h) nucleotides 2307-5741 of SEQ ID NO:3 (pol); and
- (i) nucleotides 5620-7533 of SEQ ID NO:3 (env).

- 5 9. The polypeptide of claim 8 that is encoded by nucleotides 2-1999 of SEQ ID NO:1.
10. The polypeptide of claim 8 that is encoded by nucleotides 2452-4839 of SEQ ID NO:1.
11. The polypeptide of claim 8 that is encoded by nucleotides 4871-8060 of SEQ ID NO:1.
- 10 12. The polypeptide of claim 8 that is encoded by nucleotides 598-2169 of SEQ ID NO:2.
13. The polypeptide of claim 8 that is encoded by nucleotides 2320-4737 of SEQ ID NO:2.
- 15 14. The polypeptide of claim 8 that is encoded by nucleotides 4738-6722 of SEQ ID NO:2.
15. The polypeptide of claim 8 that is encoded by nucleotides 585-2156 of SEQ ID NO:3.
16. The polypeptide of claim 8 that is encoded by nucleotides 2307-5741 of SEQ ID NO:3.
- 20 17. The polypeptide of claim 8 that is encoded by nucleotides 5620-7533 of SEQ ID NO:3.
18. A polypeptide encoded by a sequence at least 15 base pairs in length selected from a polynucleotide sequence, the polynucleotide sequence selected from the group consisting
- 25 of:
- (a) SEQ ID NO:1;
 - (b) the fully complementary sequence of SEQ ID NO:1;
 - (c) SEQ ID NO:2;
 - (d) the fully complementary sequence of SEQ ID NO:2;
 - 30 (e) SEQ ID NO:3;
 - (f) the fully complementary sequence of SEQ ID NO:3; and
- further characterized by having less than 70% homology with the corresponding

region in human, mouse and primate retroviral sequences, wherein the last five 3' bases are unique to the selected sequence.

- 5 19. The polypeptide of claim 18, wherein the sequence of at least 15 base pairs is selected from SEQ ID NO:1.
20. The polypeptide of claim 18, wherein the sequence of at least 15 base pairs is selected from the fully complementary sequence of SEQ ID NO:1.
- 10 21. The polypeptide of claim 18, wherein the sequence of at least 15 base pairs is selected from SEQ ID NO:2.
22. The polypeptide of claim 18, wherein the sequence of at least 15 base pairs is selected from the fully complementary sequence of SEQ ID NO:2.
- 15 23. The polypeptide of claim 18, wherein the sequence of at least 15 base pairs is selected from SEQ ID NO:3.
24. The polypeptide of claim 18, wherein the sequence of at least 15 base pairs is selected from the fully complementary sequence of SEQ ID NO:3.
- 20 25. A polypeptide encoded by a sequence selected from the group consisting of SEQ ID NO:4 through SEQ ID NO:74.
- 25 26. A polypeptide encoded by a sequence at least 20 nucleotides in length that hybridizes under stringent conditions to a molecule selected from the group consisting of
- (a) SED ID NO:1;
 - (b) the fully complementary sequence of SEQ ID NO:1;
 - (c) SEQ ID NO:2;

30 (d) the fully complementary sequence of SEQ ID NO:2;

 - (e) SEQ ID NO:3; and
 - (f) the fully complementary sequence of SEQ ID NO:3.